

AN INTERESTING FAUNA ASSOCIATED WITH WESTERN GORSE
HEATH ON THE LONG MYND, SHROPSHIRE, INCLUDING A NEW
COUNTY RECORD FOR *CALOMICRUS CIRCUMFUSUS*
(MARSHAM) (COL.: CHRYSOMELIDAE)

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The Long Mynd (SO430940) is a large area of moorland in the Shropshire Hills, rising to 516m. It is a registered Common and intensive grazing has reduced most of the dry heath flanks to a sparse acidic grassland dominated by sheep's sorrel, etc, with low cushions of western gorse *Ulex gallii* Planchon. Many such gorse cushions were investigated for invertebrates in the course of up-dating an earlier Biological Survey (Scruby *et al*, 1985). The basic technique was: i) to lever up the lower edge of the gorse cushions using a pole, and to place the bag of a sweep net beneath; ii) the gorse was then beaten with the pole, and iii) the bag withdrawn for examination of the catch. The investigation was carried out over the period 23 July–8 August, 1996.

The ground weevils *Trachyphloeus angustisetulus* Hansen and *Strophosoma nebulosum* (Stephens) were found to be very widespread on the property, while the Nationally Scarce *Caenopsis waltoni* (Boheman) was more localized. A further Nationally Scarce weevil, *Acalles ptinoides* (Marsham), appears to show a relict distribution associated with surviving areas of heather, and the Nationally Scarce leaf beetle *Calomicrus circumfusus* (Marsham) appears to be confined to one small area of western gorse and was previously unknown in Shropshire (Hyman & Parsons, 1992). The low gorse cushions and the patches of heather are essential components of the habitat for these species, providing shelter and overwintering sites for the grassland species as well as habitat for the heath and scrub species.

The gorse cushions are also interesting for their specialist predators. These include the uncommon bugs *Myrmedobia distinguenda* Reuter (Microphysidae) and *Loricula elegantula* (Bärensprung). The uncommon spider *Crustulina guttata* (Wider) (Theridiidae) is a surprising inhabitant of the gorse litter as it is mainly associated with wetlands, but it is widespread on these slopes. Two ladybird species, *Stethorus punctillum* (Weise) and *Exochomus quadripustulatus* (L.), were also commonly present. The former is a predator of mites and is mainly known from the tree canopy (Moreton, 1969, and Eastop & Pope, 1966). The latter is a specialist feeder on scale insects (Mills 1981) and is a regular part of the gorse fauna in the south-west, although apparently more associated with conifers elsewhere.

The presence of species more usually associated with the tree canopy is one of the more striking features of this gorse heath fauna. The weevil *Strophosoma melanogrammum* (Forster) was also common in the samples, plus small numbers of *S. capitatum* (Deg.). A few trees do occur in the lower sections of the valleys which cut into the south-east flanks of the moorland, but tree cover is predominantly confined to the surrounding countryside.

The open rocky areas between the gorse cushions also provide important specialist habitat for invertebrates such as the uncommon spider *Zelotes apricorum* (L. Koch) (Gnaphosidae). One of the more remarkable species present is the robber fly *Dysmachus trigonus* (Mg.), a speciality of hot dry places and mostly known from coastal sand-dune systems or lowland sandy heaths; the survey of July 1985 found this species in large numbers, although it flew later in 1996 and only a single specimen was seen during the 1996 recording. More typical dry grassland species are also

represented and include the click beetle *Prosternon tessellatum* (L.) and the ground beetle *Microlestes maurus* (Sturm). The locally distributed grayling butterfly *Hipparehia semele* L. occurs, though apparently only in low numbers, and favours the sparsely vegetated swards, whereas another uncommon butterfly, green hairstreak *Callophrys rubi* L., breeds on the western gorse itself. Another speciality of the sparse swards is mottled grasshopper *Myrmeleotettix maculatus* (Thunberg) which attains enormous densities locally.

This very interesting fauna is dependent on moderate levels of grazing, keeping the western gorse to a low-density component of the vegetation, but is at risk from too heavy grazing reducing and even eliminating the dwarf shrub component. Evidence of this damage is very widespread and severe locally.

This fauna is intermediate between the communities characteristic of upland and lowland heath, and is probably characteristic of the dry heaths of the Palaeozoic strata of south-western Britain, particularly the flanks of the moorland blocks of Dartmoor, Exmoor, much of the Welsh Hills and the rocky seacliffs, although the latter are much more species-rich on the whole. The vegetation type mirrors this very closely, being a form of H8 *Calluna vulgaris*-*Ulex gallii* heath which has been so degraded by heavy grazing as to be verging on U1 *Festuca ovina*-*Agrostis capillaris*-*Rumex acetosella* grassland (Rodwell, 1991 & 1992). H8 is a western oceanic type of heath, whereas U1 is more of a south-eastern dry continental type of acid grassland.

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